



<p>In place of PTO-1449 form</p> <p><b>U. S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b></p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i></p>	<p align="center"><b>Complete if Known</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 45%;">Application Number</td> <td>10/674,937</td> </tr> <tr> <td>Filing Date</td> <td>September 30, 2003</td> </tr> <tr> <td>Applicant(s)</td> <td>Gordon G. Sorrells, et al.</td> </tr> <tr> <td>Art. Unit</td> <td>2857</td> </tr> <tr> <td>Examiner Name</td> <td>Donald E. McElheny, Jr.</td> </tr> <tr> <td>Attorney Docket Number</td> <td>35296.3</td> </tr> </table>	Application Number	10/674,937	Filing Date	September 30, 2003	Applicant(s)	Gordon G. Sorrells, et al.	Art. Unit	2857	Examiner Name	Donald E. McElheny, Jr.	Attorney Docket Number	35296.3
Application Number	10/674,937												
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Examiner Name	Donald E. McElheny, Jr.												
Attorney Docket Number	35296.3												

**U. S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

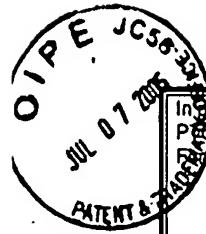
Examiner's Initials	Cited Document No.	Foreign Patent Document (Country Code Number - Kind)	Publication Date MM/DD/YYYY	Patentee or Applicant of Cited Document	Translation Y/N

## **OTHER PRIOR ART**

Examiner's Initials	Cite# No.	Include name of the author(s) (in CAPITAL LETTERS), title of the article, title of the item, date, page(s), volume- issue number(s), publisher, city/country where published.
<i>DR</i>		P. Davis, Surface Deformation Associated with a Dipping Hydro fracture, Journal of Geophysical Research, Vol.
		88, No. B7, 1983, pp. 5826-5834.
		<del>Mayerhofer, M., et al. Surface Tiltmeter Mapping, XP-002170044, from SPE 59715, 2000 SPE Permian Basin</del>
		<del>Oil &amp; Gas Recovery Conference, Midland, TX, March 21 - 23, 2000.</del>
<i>DGM</i>		<del>Mayerhofer, M., et al; Tiltmeter Hydraulic Fracture Mapping</del>
		<del>in the North Robertson Field, West Texas, from SPE 59715,</del>
		<del>2000 SPE Permian Basin Oil &amp; Gas Recovery Conf, Midland, TX,</del>
		<del>March 21-23, 2000, p. 1-8.</del>

Examiner Signature	→ H.R.H.	Date Considered	8/6/05
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Indicate of PTD-1449 From	U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)					
SHEET	1	OF	2	Application Number	10/674,937
				Filing Date	September 30, 2003
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				Art Unit	2857
				Examiner Name	Donald E. McElheny, Jr.
				Attorney/Docket Number	35296.3

U. S. PATENT DOCUMENTS				
Examiner's Initials	Cite No.	Document Number (Country Code - Number - Kind)	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document
	B1	4,271,696	06/1981	Wood
	B2	4,353,244	10/1982	Wood
	B3	4,673,890	06/1987	Copland et al.
	B4	4,690,214	09/1987	Wittrisch
	B5	4,747,454	05/1988	Perryman
	B6	5,002,431	03/1991	Heymans et al.
	B7	5,040,414	08/1991	Graebner
	B8	5,417,103	05/1995	Hunter et al.
	B9	5,503,225	04/1996	Withers
	B10	5,944,446	08/1999	Hocking
	B11	6,253,870	07/2001	Tokimatsu et al.
	B12	6,370,784	04/2002	Hunter et al.
	B13	20030205375	11/2003	Wright et al.

FOREIGN PATENT DOCUMENTS				
Examiner's Initials	Cite No.	Foreign Patent Document (Country Code - Number - Kind)	Publication Date (MM-DD-YYYY)	Patentee or Applicant of Cited Document
	B14	WO 00/29716	05/2000	Golder Sierra LLC
	B15	WO 01/81724	11/2001	Pinnacle Technologies, Inc.

OTHER PRIOR ART				
Examiner's Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (date, page(s), volume, issue number(s)), publisher, city/country where published.		
	B16	C. Cipola and C. Wright, Diagnostic Techniques to Understand Hydraulic Fracturing: What? Why? and How? SPE 59735, 2000 SPE/CERI Gas Technology Symposium, April 3-5 2000, Calgary, Alberta, Canada, p. 1-13.		
	B17	E. Davis, C. Wright, S. Demetrius, J. Chol, and G. Craley, Precise Tiltmeter Subsidence Monitoring Enhances Reservoir Management, SPE 62577, SPE Western Regional Conference, June 19-23 2000, Long Beach, CA.		
	B18	P. Davis, Surface Deformation Associated with a Dipping Hydro fracture, Journal of Geophysical Research, Vol. 88, No. B7, 1983, pp. 5829-5837. <i>ABSTRACT ONLY</i> .		
	B19	P. Perri, M. Emanuele, W. Fong, M. Morea, Lost Hills CO <sub>2</sub> Pilot Evaluation, Design, Injectivity Test Results, and Implementation, SPE 62526, SPE Western Regional Conference, June 19-23 2000, Long Beach, CA, p. 1-13.		
	B20	L. Griffin, C. Wright, Z. Moschovidis, Tiltmeter Mapping to Monitor Drill Cuttings Disposal, presented at the 37 <sup>th</sup> US Rock Mechanics Symposium, Vail, CO, 6 - 9 June 1999.		
	B21	L. Griffin, C. Wright, E. Davis, S. Wolhart, and E. Davis, Surface and Downhole Tiltmeter Mapping: An Effective Tool for Monitoring Downhole Drill Cuttings Disposal, SPE 63032, 2000 SPE Annual Technical Conference, October 1-4 2000, Dallas TX.		
	B22	K. Lang, Improvements in Fracture Stimulation Technology, PTTC Network News, Vol. 7, No. 1, 1 <sup>st</sup> Quarter 2001.		

Examiner Signature	<i>[Signature]</i>	Date Considered	8/16/05
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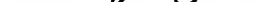
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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